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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HOANG, DANIEL L

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PAPER NUMBER

2436

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/678,014	Applicant(s) DESANTI ET AL.	
	Examiner DANIEL L. HOANG	Art Unit 2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/9/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☐ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see Arguments/Remarks, filed 2/9/09, with respect to the rejection(s) of claim(s) 1, 24, and 29 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Scheible, "Limited ELS Buffer Proposal" (applicant submitted prior art).

CLAIMS PRESENTED

Claims 1-11, and 24-37 are presented.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, and 24-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC791: Internet Protocol – DARPA Internet Program Protocol Specification, hereinafter RFC791, and further in view of applicant's disclosure of prior art and Lubber, US Patent No. 7,149,169, and also further in view of Scheible, "Limited ELS Buffer Proposal" (prior art submitted by applicant), hereinafter Scheible.

As per claims 1 and 24, 29:

A method, comprising:

- I. determining that an authentication message has a length that exceeds the message length supported by a target entity in a fibre channel fabric;
 - a. fragmenting the authentication message into message fragments including a first message fragment and a second message fragment;
 - b. generating a first extended link services message including the first message fragment, wherein the first ELS message is associated with a first exchange;
 - c. generating a second ELS message including the second message fragment, wherein the second ELS message is associated with a second exchange;
 - d. sending the message fragments including the first message fragment and the second message fragment to the target entity, wherein the second message fragment is sent after the first exchange is complete.

RFC791 teaches:

- I. *[see page 12 of 49] "Fragmentation of an internet datagram is necessary when it originates in a local net that allows a large packet size and must traverse a local net that limits packets to a smaller size to reach its destination."*
- a. *[see page 12 of 49] "The internet fragmentation and reassembly procedure needs to be able to break a datagram into an almost arbitrary number of pieces that can be later reassembled."*
- d. *[see page 17 of 49] The various control flags indicating "more fragments" is considered to be analogous to the method that applicant uses to exchange message fragments.*

RFC791 does not implicitly teach that the messages that are fragmented are specifically "authentication" messages. As per applicant's admittance of prior art disclosed in applicant's background, it would have been obvious at the time of the invention to one of ordinary skill in the art to implement RFC791 in order to fragment authentication messages in a switching fabric. [see application, paragraphs 0002-0005]

RFC791 and applicant's prior art disclosed in the background is mute in teaching generating ELS messages including message fragments. For this limitation, examiner relies on the Lubber reference.

Lubber teaches:

b/c. [see col. 14, lines 26-43] "...messages are formatted as ELS fibre channel frames..." It would have been obvious to one of ordinary skill in the art to modify the teachings of RFC791 above to incorporate that which is taught by Lubber because "in a Fibre Channel embodiment, Fibre Channel messages are sent using Extended Link Services (ELS) that allow a Fibre Channel port on one device to request a function or service from another port" (US PGP No. 20030114981).

The combination of the above references is mute in teaching "sending a process login (PLOGI) message to a target entity wherein the PLOGI process allows a source entity and the target entity to determine that an authentication message has a length that exceeds an authentication message length supported by the target entity. For this limitation, Examiner relies upon the Scheible reference.

Scheible teaches:

The limitations associated with sending a PLOGI message that contains more bytes than an allowed number of bytes in an ELS buffer (see page 1, paragraphs 1-2). Examiner views this as analogous to determining that an authentication message has a length that exceeds an authentication message length supported by the target entity using a PLOGI message. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of the above references to include that which is taught by Scheible in order to provide a solution for limited ELS buffers.

As per claims 2 and 25 and 30:

The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises setting a fragmentation bit in each message fragment except the last message fragment.

[see RFC791, page 12 of 49, "more-fragments flag"]

As per claims 3 and 26 and 31:

The method of claim 2, wherein the setting of the fragmentation bit of one of the message fragments indicates that a subsequent message fragment is to be sent.

[see RFC791, page 12 of 49, "more-fragments flag"]

As per claims 4 and 27 and 32:

The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises resetting a fragmentation bit in the last message fragment of the authentication message.

[see RFC791, page 12 of 49, "The more-fragments flag indicates (by being reset) the last fragment"]

As per claims 5 and 28 and 33:

The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises labeling each message fragment with a Sequence Number.

[see RFC791, page 12 of 49, "identification field"]

As per claim 6 and 34:

The method of claim 4, wherein the resetting of the fragmentation bit in the fragmentation field of the last message fragment indicates that no subsequent message fragments will follow the last message fragment.

[see rejection of claim 4, further wherein it is clear that if the fragmentation bit indicates that the received message fragment is the last message fragment then there will be no subsequent messages following the "last message fragment".]

As per claims 7 and 35:

The method of claim 1, wherein the message comprises, but is not limited to, authentication information and contains one or more of the following fields:

a field that identifies the authentication message as an authentication message; and
an authentication command code field that identifies the particular authentication message of an authentication protocol.

[see RFC791, page 18 of 49, "Protocol"]

[see application, paragraph 0006]

As per claims 8:

The method of claim 6, wherein the authentication protocol comprises but is not limited to the following protocols: DH-CHAP, SRP, or FCAP.

[see application, paragraph 0006]

As per claim 9:

The method of claim 1, wherein the target entity is an end device in the Fabric.

[see application, paragraph 0008]

As per claim 10:

The method of claim 1, wherein the target entity is the Fabric.

[see application, paragraph 0008]

As per claim 11:

The method of claim 6, wherein the target entity either accepts or discards the message fragment based on the value of the Sequence Number.

[see RFC791, page 12 of 50] "The identification field is used to distinguish the fragments of one datagram from those of another. The originating protocol module of an Internet datagram sets the identification field to a value that must be unique for that source-destination pair and protocol for the time the datagram will be active in the Internet system."

The target entity reassembles the packet fragments with other packet fragments based on the identification field.

As per claim 36:

The system of claim 29, further comprising means for sending an RPBC (Report Port Buffer Conditions) message to the target entity, wherein the target entity responds with information regarding a maximum authentication message length supported by the target entity.

[see Scheible, page 3, 12.3.2.xx Report Port Buffer Conditions RPBC]

As per claim 37:

The system of claim 36, further comprising means for sending information regarding a maximum authentication message length supported by the source entity.

[see rejection of claim 1, "PLOGI message"]

POINTS OF CONTACT

- *. Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulaney Street
Alexandria, VA 22314

- *. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Hoang whose telephone number is 571-270-1019. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Daniel L. Hoang/
Examiner, Art Unit 2436

/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2436